SAC2
User Manual

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- We are grateful for your choice in this product: SPIDER AUTO CAM S2. The following contents describe the responsibility scope of the warranty service covered and cautions relating to this product. Full knowledge of the product is recommended before use.

- We shall not be responsible for the damages caused by neither errors nor data loss of this product, plus damages while this product is being operated by a user.

- This product is designed to record, store, play and analyze the videos incurred by impacts and car accidents. Videos can be also recorded even at user's discretion. However, it is not assured to record all videos in a specific environment or operation situation.

- Furthermore, under circumstances that the impact on a car is weak or a slight accident, the G-sensor can not detect the impact, which can lead to the equipment being unable to automatically start recording to the event folder. In this situation, the urgent save button(REC) on the product should be pressed to start recording a video to the <EVENT> folder all other files will be saved in the <DRIVING> folder.

- Design and specification can be changed without prior notice for accuracy of the information. We has no responsibility for this.

2. Cautions in Use

Cautions for safety are listed to prevent accidents before using the product. We are not responsible for any problems occurred if it is used in violation of those written in the user manual.

- **SD cards are consumables only.**
  - Periodic change will help increase the life cycle.

- **Please avoid any foreign substances getting into units.**
  - This will cause damages and malfunctioning

- **Please stop using the product and contact the provider if any malfunctions are found.**
  - If you keep using the product after any malfunctions are found, it could be aggravated. Then you are hard to get normal customer support.

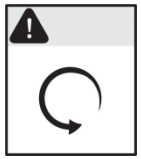
- **Please change the position of the camera periodically as the road surface and conditions may vibrate the unit and cause malfunctions.**
  - If the angle of camera is not checked, normal recording maybe affected.

- **Use only spare parts and accessories provided by Winey Networks.**
  - We are not responsible for any damages caused by using other parts.

2. Cautions in Use

Cautions for safety are listed to prevent accidents before using the product. We are not responsible for any problems occurred if it is used in violation of those written in the user manual.

Caution	Failing to follow instructions marked with this symbol, may cause slight injury to yourself or damage your property.	Warning	Failing to follow instructions marked with this symbol, may cause personal injury and or fatality.



Please adjust the camera so that it is facing outside and lens is positioned to desired angle.

When entering tunnel, counter light on to lens or when day is too dark, the quality of footage maybe affected.

For tinted window, depending on the transparency, the white balance on the lens maybe affected.

If the seriousness of the accident is severe and/or if the power is off, the recorded footages maybe lost.

For best quality footage, please maintain the windscreen cleaned.

Any marks, hand prints on the lens may lower the quality of the footage.

The ideal temperature for the unit when installed is between 0~45’ c. It is advised that the operators maintain the appropriate temperature.

The Warranty is void if the unit is not repairable for unit is very sensitive to moistures.

Please avoid direct sunlight.

Please use only certified SD card and when ejecting card, please make sure the power is off.

Use only spare parts and accessories provided by Winey. We are not responsible for any damages caused by using other parts.

Please use only soft cloth to clean the unit. Do not use any chemical or other cleaning products.

Cautions for safety are listed to prevent accidents before using the product. We are not responsible for any problems occurred if it is used in violation of those written in the user manual.

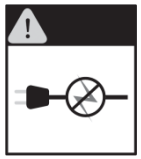
Caution	Failing to follow instructions marked with this symbol, may cause slight injury to yourself or damage your property.	Warning	Failing to follow instructions marked with this symbol, may cause personal injury and or fatality.

Do not press buttons too hard.

Please do not disassemble the unit. Do not push the reset button with sharp objects.

Please make sure the power cable is plugged in properly. Incomplete connection may cause sparks.

Do not use wet hands when plugging and/or unplugging the unit from the power.


Please do not use damaged cables.

Please do not place heavy objects and/or bend the power cable. It may cause fire and electric shock.

Please make sure the power cable and the unit stay away from fire and/or any hot objects.

Please do not remodel power cables and/or cut or damage power cable. Warranty maybe voided.

Please turn power off when not using for long period of time. Leaving the power on for excessive period of time may cause the unit become over heated.

Please use only original parts. Talk to the experts when using the unit for the first time.

Please avoid using the unit when driving. This may cause road accidents.

Please place the unit so it does not affect drivers view.

3. Product Description

This product is very useful to analyze causes of accident by storing front direction images/rear direction images/voices inside of the car at the time of the car accident or occurrence of impact with Black Box product for vehicle to store images and voices in front and rear direction.

Features

- If external camera or rear camera is connected, it stores in 2 channels in front and rear directions. Now you can store accident of the rear.
- You can record a desired screen at your own option with the 360-degree-revolving stand.
- You can store not only anytime store, event store and forced store but also record even during parking in order to strengthen security function.
- Using external GPS module(optional), you can get more specific information of your driving like as location, time, speed.

Functions

- **Store at all times** : Images in front and rear directions are continuously recorded as long as electric power is inputted.
- **Event store** : If impact sense is set or forced store button is pressed then front and rear sides are recorded for 15 seconds respectively.
- **Store to monitor parking** : If operation is sensed as long as electric power is connected, then it is automatically recorded for 15 seconds in front side respectively under even minute out impact or sound. (Max 1 min long)
- **Backup store** : Last file can be recorded by internal backup function even though electric power is disconnected.
- **Video output** : Images are shown in real time during installation and operation by VIDEO OUT function.
- **Exclusive viewer** : Amount of impact, speed, location, etc. at the time of accident can be analyzed through the exclusive viewer using a computer. And they can be viewed with the general image replay program through conversion mode.
- **Drive record store** : Date/time/location of the vehicle during driving are recorded, location can be represented through the viewer.
- **Auto deletion function** : When storage capacity is not enough , the oldest file a each folder is delete sequentially to save latest driving picture.
- **Installed discharge prevention device**
  - When black box connects to the battery of vehicle directly, there is a device in black box to cut off power for preventing battery discharge with vehicle.
  - During parking mode, voltage of car battery is off under some standard figures(11.8V ±0.1V) and power use for preventing vehicle discharge by using black box is cut off automatically.
  - When the power is supplied by 12.2 Voltage over, black box will be start again.

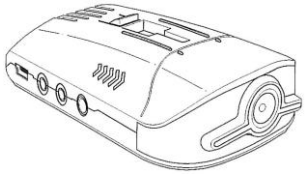
4. Product Parts

After purchasing goods , make sure that main items and given accessory.

▶ If user finds out missing accessory, then call purchasing store right away..

▶ Design and Specification can be changed without prior notice for accuracy of the information.

PART

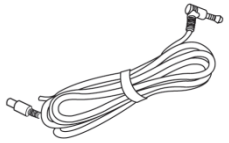


• Main Body

• Axis Bracket

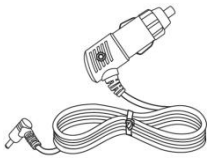
• Extra-Adhesive Tape

• Rear Camera



• External Cable

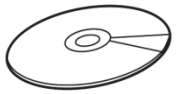
< Choose 1 / additional purchase available>



• Cigar Power Cable

• 3-pole-fuse Cable

• Cable Holder

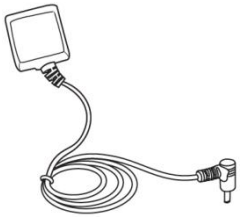


• Software CD

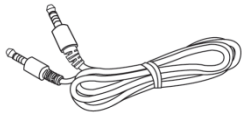
• Simple Manual

OPTION

• SD Card



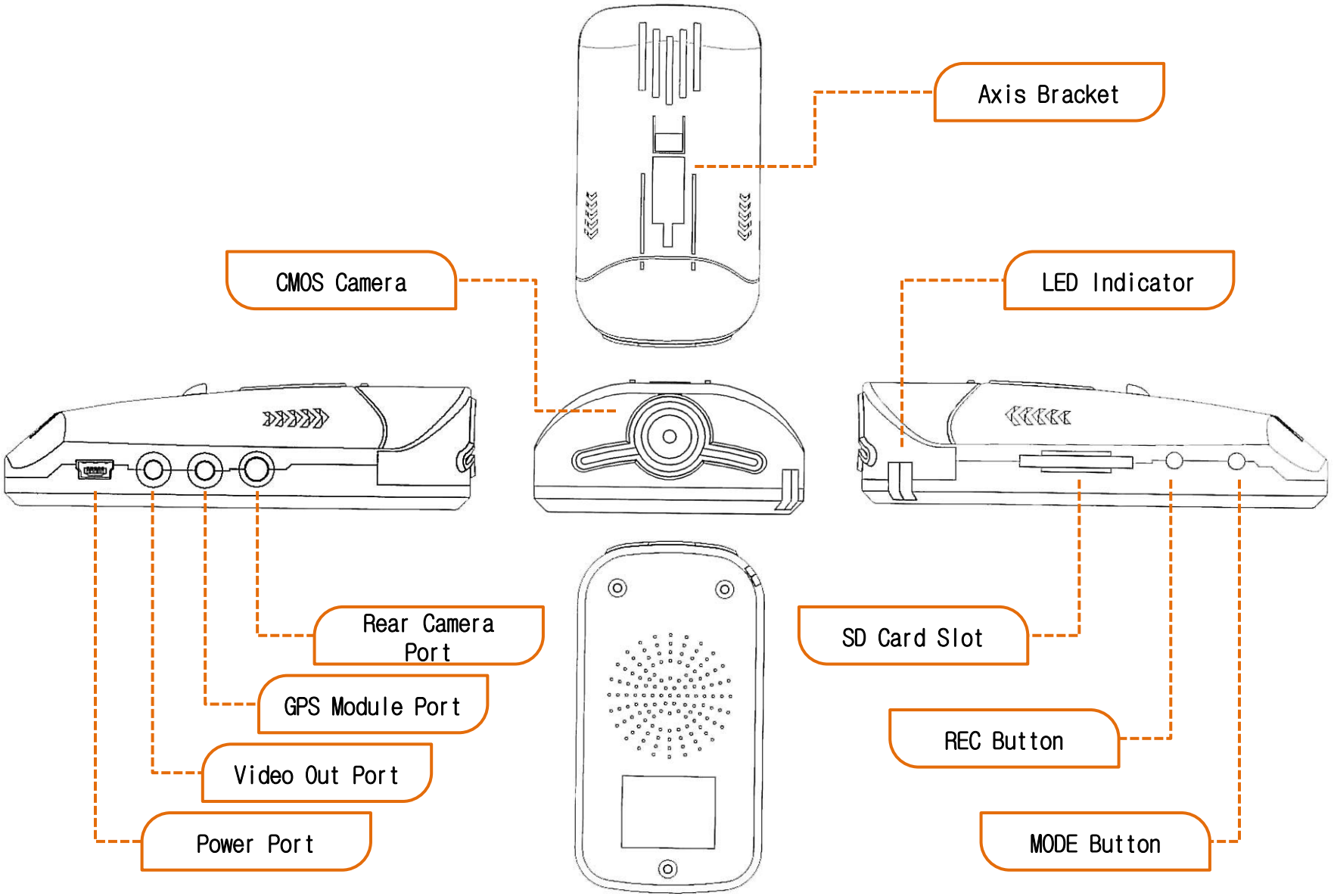
• GPS Module

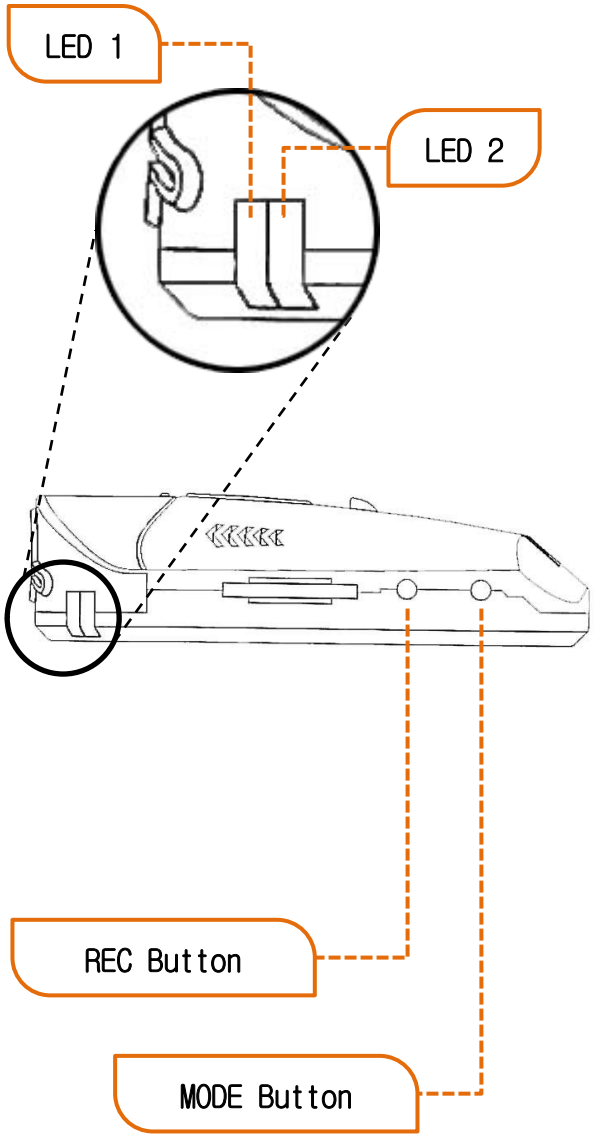


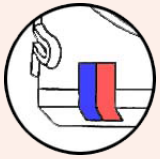
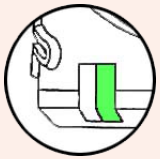
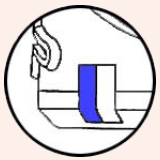
• Video Out Cable

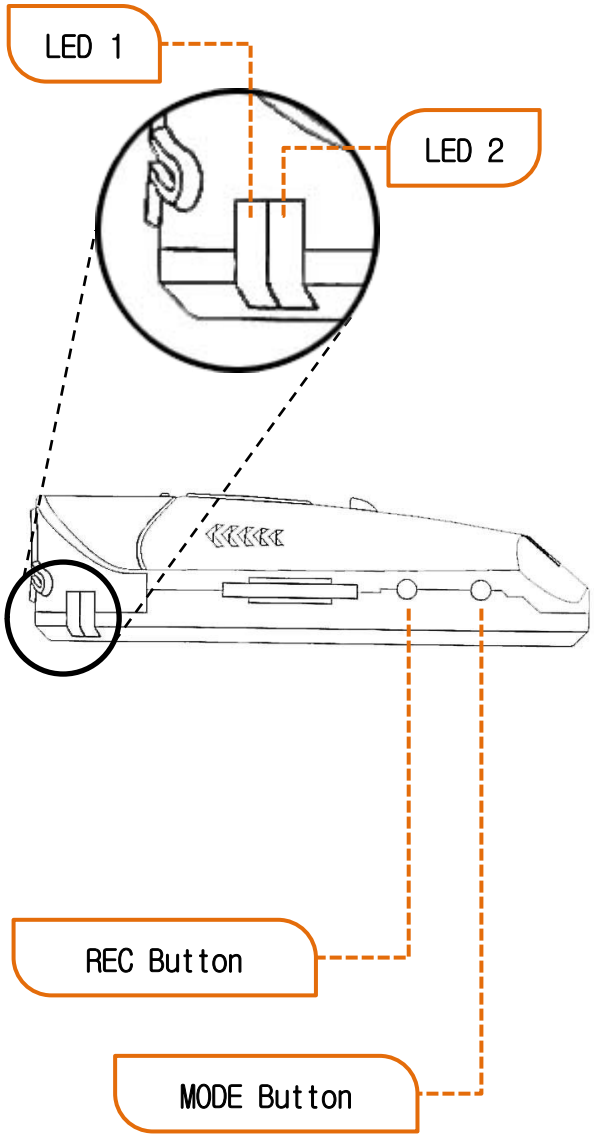
- ❖ Model Name : SAC2
- ❖ Operating power : DC 12V
- ❖ Power Consumption : Max 4W
- ❖ Acceleration sensor : 3G - Sensor (x,y,z)
- ❖ Lenz : (1ch) 2.0 Mega Pixel, 130 degree
  (2ch) 2.0 Mega Pixel, 130 degree
- ❖ Camera : (1ch) CMOS 1/3.2" Image Sensor
  (2ch) CMOS 1/3.1" Image Sensor
- ❖ Recording Mode: Record during driving / Event/
  Parking (Motion/Event)
- ❖ Frame Rate: Max 30 fps
  Max each 15 fps
- ❖ Resolution : 1CH HD 1280 x 720 pixel
  2CH VGA 640 x 480 pixel
- ❖ Audio : Included C - Mic
- ❖ Video Output : Supported (2.5Ø 3pin)
- ❖ G P S (Optional) : SirfIII, U-blocks
- ❖ Storage: MLC Type SDHC Class 10
  Up to 32GB
- ❖ Dimension : 54 x 103 x 26.5 mm
- ❖ Weight : 75g
- ❖ Operating Temperature : -20℃ ~ 70℃
- ❖ Storage Temperature : -30℃ ~ 80℃
- ❖ Recommended OS : Windows XP, Vista, 7

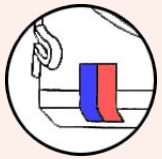
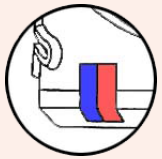
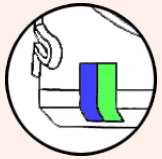
※ Design and Specification can be changed without prior notice for accuracy of the information.


Axis Bracket
CMOS Camera
LED Indicator
Rear Camera Port
GPS Module Port
Video Out Port
Power Port
SD Card Slot
REC Button
MODE Button



Status	Operations	LED Coloe	LED 1	LED 2	Buzzer Tone
Power On	- Connect the power cable to the power port of main body.		Blue LED keeps lighting during booting.	Red LED keeps lighting during booting.	After booting, 1 long beep sounds. When re-booting, 2 long beeps sound.
Record during Driving	- Max 1 min long file recording - When event occurs, the file goes to the EVENT folder. (30 sec long)		-	Red LED is flickering. (When event occurs, LED is flickering fast.)	- When event occurs, 2 short beep sound. - After storing the event file, 1 short beep sounds.
Record during Driving (GPS)			-	Green LED is flickering. (When event occurs, LED is flickering fast.)	
Parking Mode	- When the ignition is off (ACC power is off), turn into PARKING Mode. - When event occurs, 30 sec file is stored. - When motion is detected, Max 1 min file is stored.		Blue LED is flickering (When event occurs or motion is detected, LED is flickering fast.)	-	Turning into the PARKING Mode, 1 long beep sounds. When event occurs, 2 short beeps sound. After storing the event file, 1 short beep sounds.
Power Off	- Eject the power cable to the power port of main body.		Blue LED flickers ONCE.	Red LED flickers ONCE.	-
			At a time		



Status	Operation	LED Color	LED 1	LED 2	Buzzer Tone
No insertion of SD Card	- No insertion of SD Card - Recognition error of SD Card		Blue LED flickers.	Red LED flickers.	5 times of 2 short beeps sound and automatically re-boot.
			At a time		
Firmware Upgrade	- Using SD Card - Completing firmware update automatically re-boot.		Blue LED flickers.	Red LED flickers.	Starting upgrade, 2 short beeps sound.
			By turns		After upgrade, 2 short beeps sound.
Format the SD Card	- Push two buttons (REC & MODE) at a time over 5 sec.		Blue LED flickers.	Green LED Flickers.	During format the SD Card, short beep sounds continously.
			By turns		

Status	Operation	LED Color	LED Status	Buzzer Tone
REC Button	Press REC button shortly	- Start Manual Event recording. - A file is saved at <EVENT> folder.	When event occurs, Red led is flickering fast. (When GPS is linked, Green led is flickering fast.)	When event occurs, 2 short beep sound.
				After storing the event file, 1 short beep sounds.
	Press REC button long<->	Buzzer Tone On / Off	none	When it operates, there is a beeper shortly.
MODE Button	Press MODE button shortly <->	When Video Out is use, Camera output Switch of Front/Rear view.	none	When it operates, there is a beeper shortly.
	Press MODE button long<->	Voice recording On / Off	When voice recording is off, LED flickers SLOWLY.	When it operates, there is a beeper shortly.

8. Management of Using SD Card

This is guide line with SD card use and control for saving, checking files in recorded picture

- SD Card is optional, consumable product.
  - According to SD card's life cycle, user may replace old one with new one regularly. SD Card 's life span is affected by usage circumstance. Especially, when this is use for a long time, file's termination and loss is not belong to maker's responsibility.

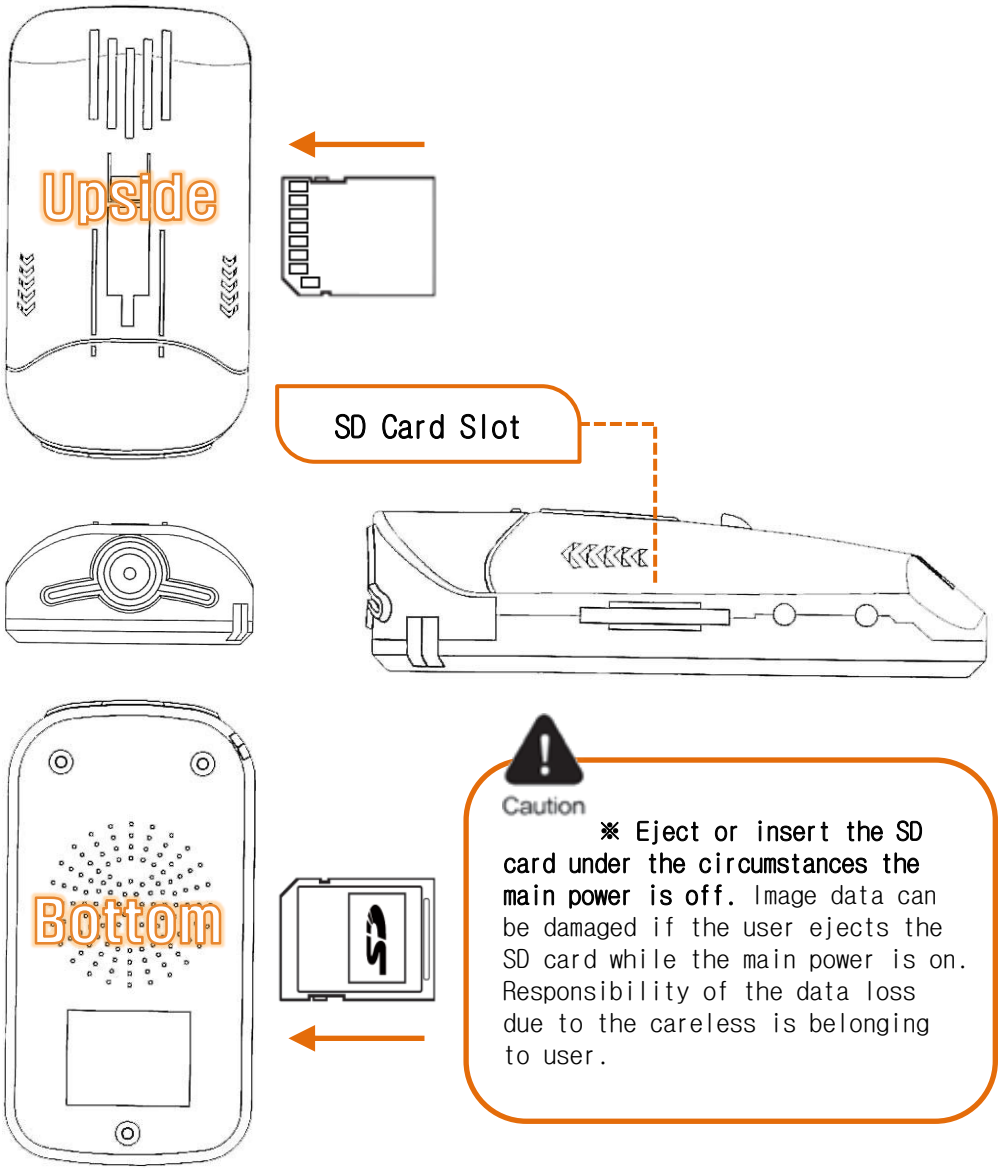
- Recommend strongly MLC type Class 10 SD/SDHC. (support up to 32 GB)

- For checking main item's function normally, make sure SD card's data once a week.

- For checking file is saved stability, recommend strongly proceed PC format with SD card more than twice a month.

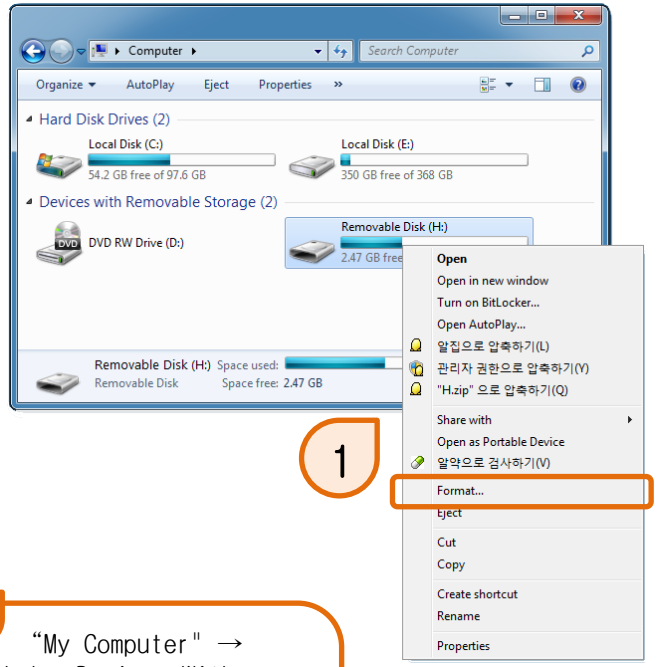
- After referring to the right image, please connect it correctly on inserting SD Card.

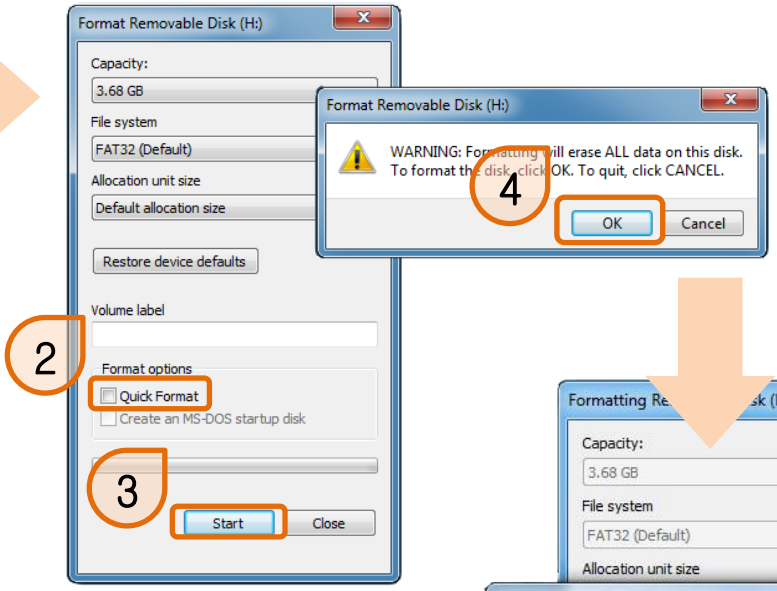
- Under the circumstance that the power of black box is completely off, SD card should be inserted or ejected.
  - Inserting or ejecting the SD Card could bring about data loss while the black box is working on. And this action could damage on SD card itself. Responsibility of the data loss due to the careless is belonging to user.

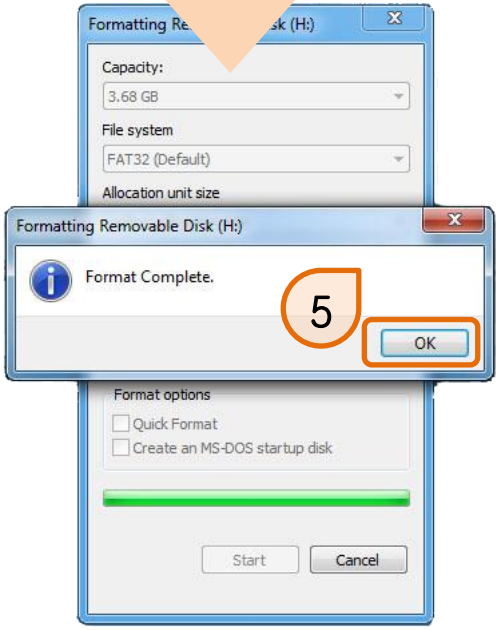

Upside
SD Card Slot
Bottom
Caution
※ Eject or insert the SD card under the circumstances the main power is off. Image data can be damaged if the user ejects the SD card while the main power is on. Responsibility of the data loss due to the careless is belonging to user.

For safe storage, confirmation of files, it is recommended that SD card format in PC is to do twice a month. After referring to the ways of SD card format in PC, user should control or use SD card regularly.

Caution ※ Before proceeding PC format, please move important data files from SD card to other storage device and start PC format. During proceeding format, all data in SD card is deleted completely and the user setting value is initializing.







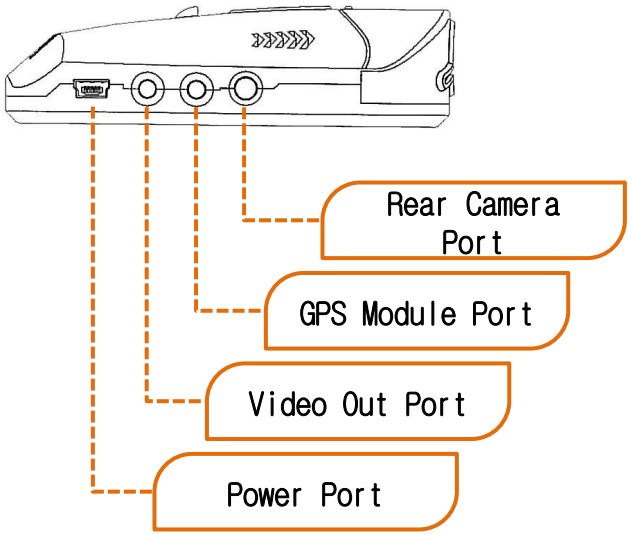
1 "My Computer" → Under Devices With Removable Storage, locate the SD card. Right-click the SD card and select "Format" from the listed options.

2 Deselect the "Quick format" at the format option.

3 Click the "Start" button.

4 After checking warning message, click the "OK" button.

5 After proceeding format, click the "OK" button.



Caution

※ Please make sure the power cable is plugged in properly. Incomplete connection may cause sparks. If user do not use given accessory from us or parts which was match with recommendable polar, then this may occur damage on purchased goods. In case of this, responsibility of careless action is not belonging to maker.

※ When connecting or taking our given accessory, please separate power cable first. Under the circumstance that the black box power is completely off, all the accessory should be inserted or ejected. Responsibility of the careless is belonging to user.

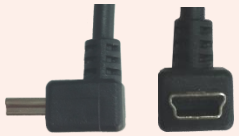
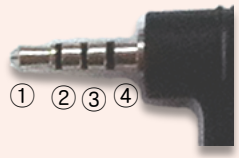
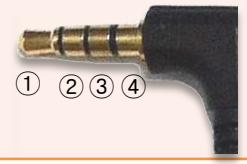
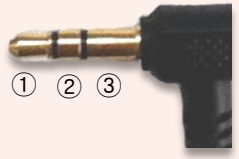
	Image	Size	Pin Map
Power Port (Mini USB)		Mini USB ⑤④③②①	① Vcc ② Vcc ③ Acc ④ vacant ⑤ Ground
Video Out Port (Optional)	① ② ③	2.5 Ø 3 pin	① Video ② vacant ③ Ground
GPS Module Port (Optional)	 ① ② ③ ④	2.5 Ø 4 pin	① Vcc ② Video ③ vacant ④ Ground
Rear Camera Port	 ① ② ③ ④	3.5 Ø 4 pin	① Vcc ② Video ③ vacant ④ Ground

	Image	Size	Pin Map
Video Output (Optional : Video Out Cable)	 ① ② ③	3.5 Ø 3 pin	① Video ② vacant ③ Ground

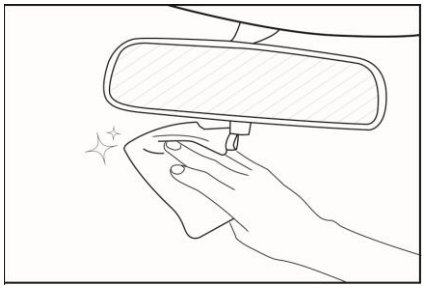
10. Cautions in Installation

For preventing some problems from careless use, the below attention and warnings will be given. After reading this with care, please install the product in safe circumstance. Unless comply with the given guide line, user cannot raise a regal issue from malfunction to maker.

Caution — Failing to follow instructions marked with this symbol, may cause slight injury to yourself or damage your property.	Warning — Failing to follow instructions marked with this symbol, may cause personal injury and or fatality.
Caution — During driving a car, installing & operating main items could be main reason in accident and injury.	Caution — Once in a while, please check the product was installed firmly in adhesive windshield. During driving a car, recording angle can change and the main product separation caused by vibration could be the reason in injury or damage.
Warning — Installation, operation should be conducted only a flat surface, safe area while the vehicle engines is off.	Caution — Dust in power connection parts may be major reason for fire. Please clean up and check this part regularly.
Caution — Parts required for installation are packed in the box of the product. After familiarizing the parts, install them in reference with the designated sequence.	Warning — When you smell smoke or odd scent from power insert parts, and then please stop using the product. Please drop by our company or purchasing places.
Caution — Please do not place the product in some locations where can make interference with driver's driving.	Caution — Windshield in front and rear of installation should be maintained cleanly.
Caution — Before cables are hidden, make sure whether product's normal function is working well with power is on. After doing this, user may hide cables in car itself.	Caution — When rear camera is installed to rear windshield of the car, it could not get vivid recording quality from tinting or heating line.
Caution — Under the circumstances that the power of black box is completely off, then connect all accessories with main body.	Caution — The maker is not responsible for product malfunction or vehicle damage from careless attention of user.

Caution ※ Before cables are hidden, make sure whether product's normal function is working well with power is on. Check the LED lighting and buzzer tone with reference to Parts & Operations(p11-p12). Our customer service & warranty is limited to the product which was made by us. Using the product, any other accessories and the installation fee are not guaranteed by our warranty service. We are not responsible for this.

1

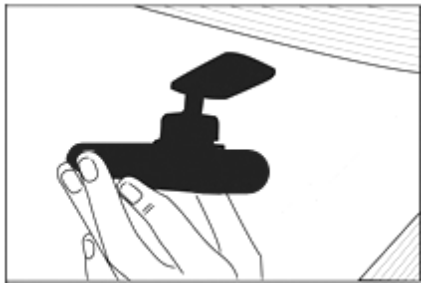


After selecting placement for installation, the front glass should be well cleaned.

2

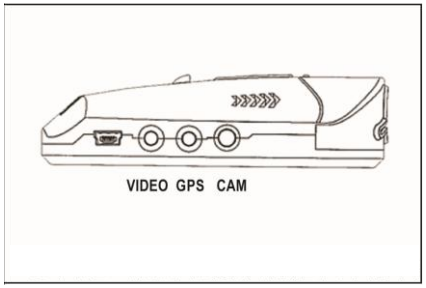
Remove the cover of the adhesive tape of the axis bracket.

3



Attach it to the desired.

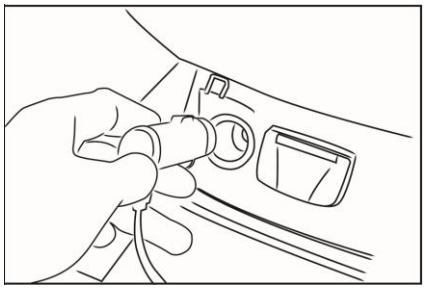
4



Connect the SD Card, Rear Camera, GPS Module and the Video Out Cable as occasion demands.

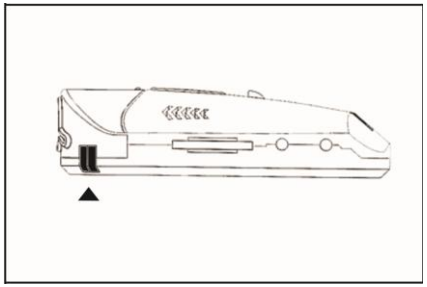
※It SHOULD be in power-off mode.

5



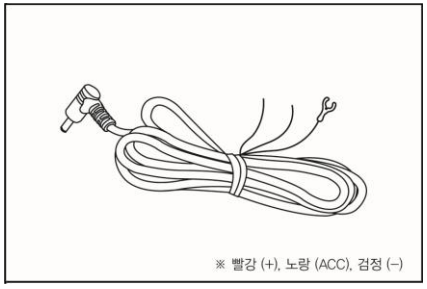
Connect the Cigar Power Cable to the power port of the Main Body and then connect it to the electric power.

6



Check whether it works normally with the LED lamp and the buzzer tone.

7



Be careful of using when use direct battery power with 3-pole fuse cable.

※ Red (+)
Yellow (ACC)
Black (-)

1

Separate power cable and make sure the power of the product is completely off.

2

After choosing installation position , then clean up rear windshield best.

3

Remove the cover of the adhesive tape of the axis bracket.

4

Attach it to the desired.

5

Connect extension cable with rear camera cable.

6

Connect the camera jack to the rear camera port of the main body.

7

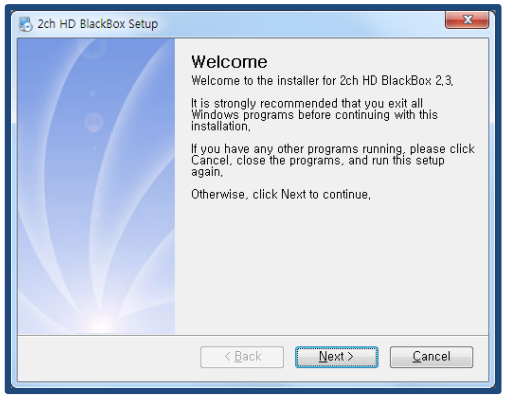
Connect the power jack and check the product is working well.

Caution ※ **When rear camera is installed to rear windshield of the car, it could not get vivid recording quality from tinting or heating line.** Please install location of rear camera and recording angle well not to make any picture distortion on installing heating line in front of rear camera lens.

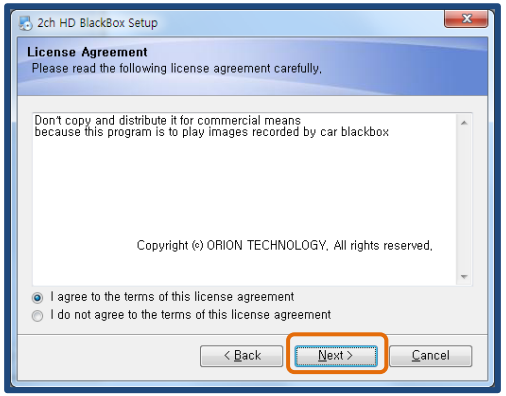
12. Viewer Program - Installation

After executing given view program file (2 CH HD Black box .exe), then click the button like the following numbers, installation will be completed.

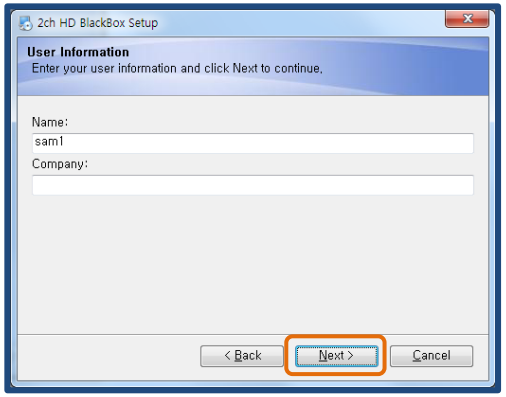
1


2ch HD BlackBox Setup
Welcome
Welcome to the installer for 2ch HD BlackBox 2.3.
It is strongly recommended that you exit all Windows programs before continuing with this installation.
If you have any other programs running, please click Cancel, close the programs, and run this setup again.
Otherwise, click Next to continue.
< Back
Next >
Cancel

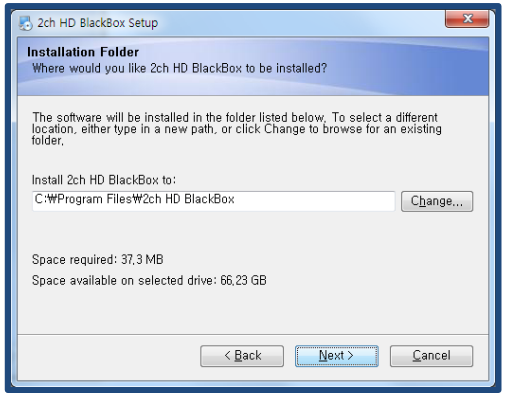
2


2ch HD BlackBox Setup
License Agreement
Please read the following license agreement carefully.
Don't copy and distribute it for commercial means because this program is to play images recorded by car blackbox
Copyright (c) ORION TECHNOLOGY. All rights reserved.
I agree to the terms of this license agreement
I do not agree to the terms of this license agreement
< Back
Next >
Cancel

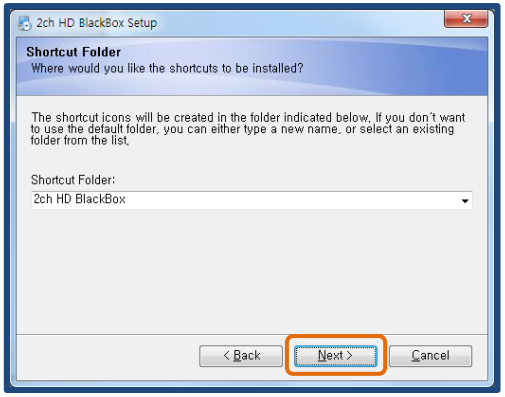
3



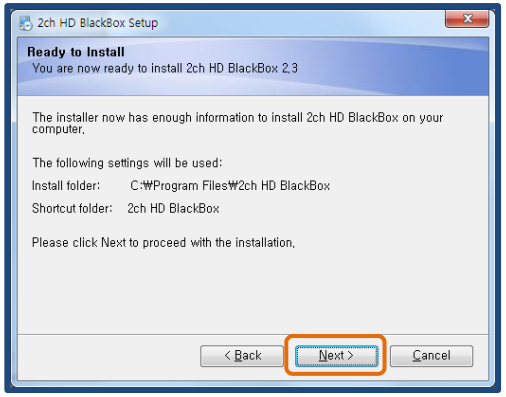
4


2ch HD BlackBox Setup
Installation Folder
Where would you like 2ch HD BlackBox to be installed?
The software will be installed in the folder listed below. To select a different location, either type in a new path, or click Change to browse for an existing folder.
Install 2ch HD BlackBox to:
C:₩Program Files₩2ch HD BlackBox
Change...
Space required: 37.3 MB
Space available on selected drive: 66.23 GB
< Back
Next >
Cancel

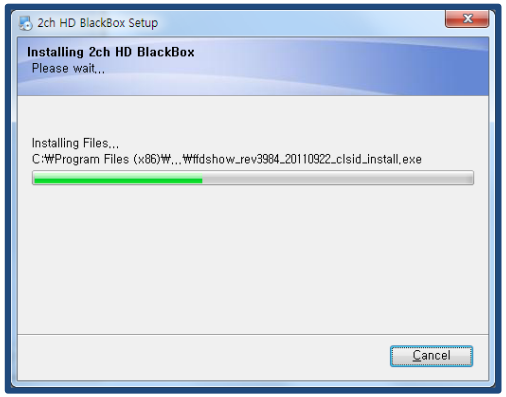
5


2ch HD BlackBox Setup
Shortcut Folder
Where would you like the shortcuts to be installed?
The shortcut icons will be created in the folder indicated below. If you don't want to use the default folder, you can either type a new name, or select an existing folder from the list.
Shortcut Folder:
2ch HD BlackBox
< Back
Next >
Cancel

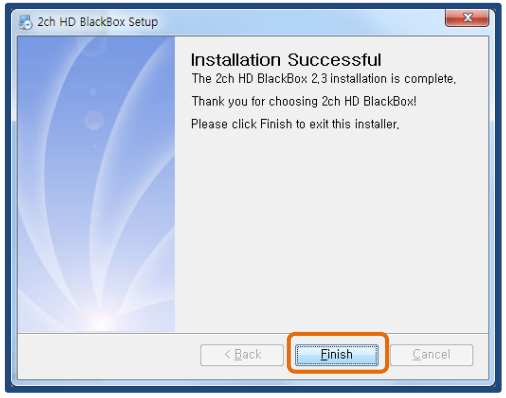
6


2ch HD BlackBox Setup
Ready to Install
You are now ready to install 2ch HD BlackBox 2.3
The installer now has enough information to install 2ch HD BlackBox on your computer.
The following settings will be used:
Install folder: C:₩Program Files₩2ch HD BlackBox
Shortcut folder: 2ch HD BlackBox
Please click Next to proceed with the installation.
< Back
Next >
Cancel

7



8


2ch HD BlackBox Setup
Installation Successful
The 2ch HD BlackBox 2.3 installation is complete.
Thank you for choosing 2ch HD BlackBox!
Please click Finish to exit this installer.
< Back
Finish
Cancel

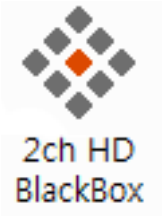
1 Check the Desktop icon or Start Menu on Windows. Make sure that program "2ch HD BlackBox" was installed well.

2 Execute the "2ch HD BlackBox".

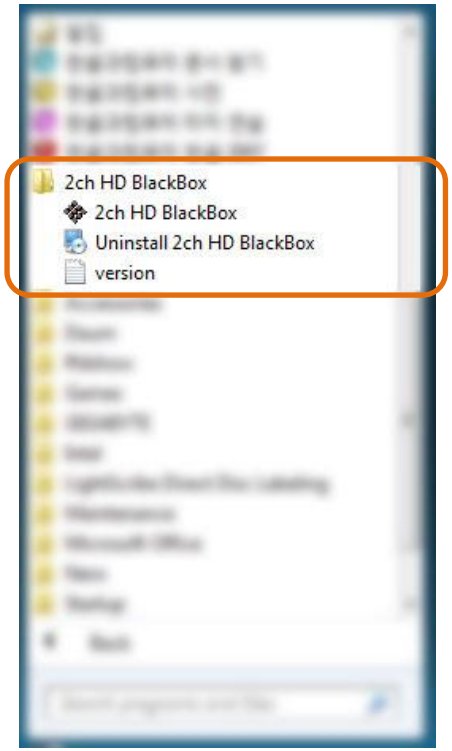
3 To remove viewer program, please use "Uninstall 2ch HD BlackBox" in start menu or use program remove menu in control panel.

Make sure that other 3 more programs providing with Viewer Program is uninstalled.

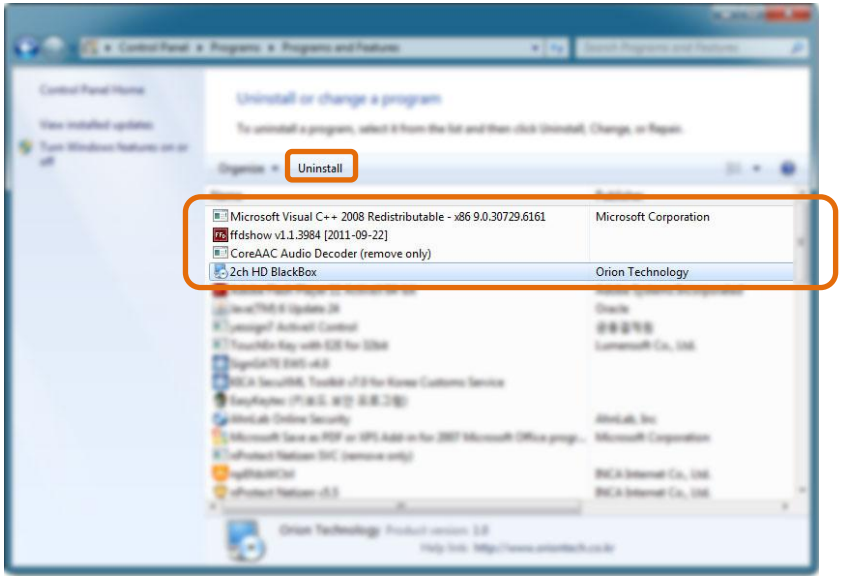
- ffdshow v1.1.3984
- Microsoft Visual C++ 2008 Redistributable - x86 9.0.30729.6161
- CoreAAC Audio Decoder



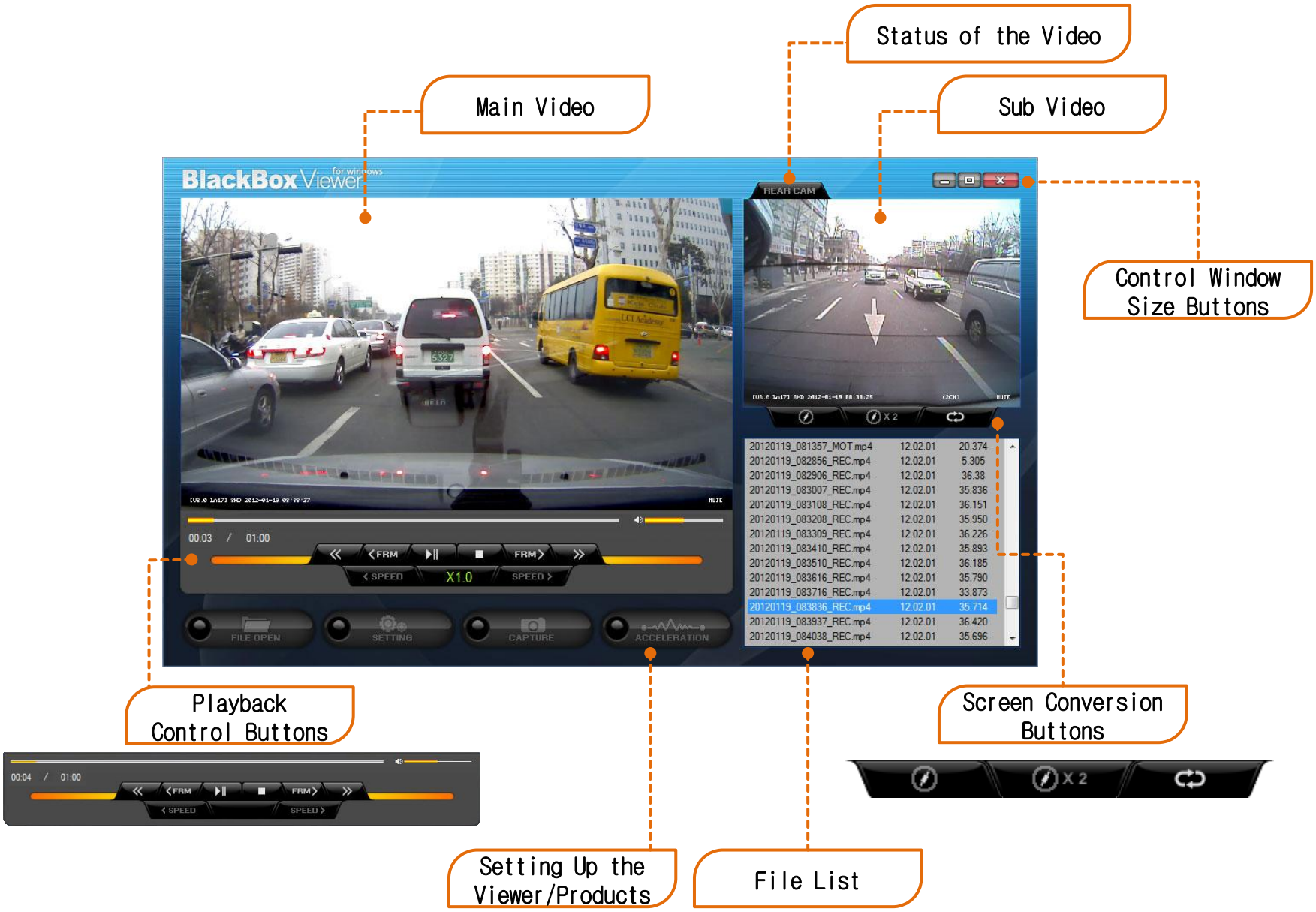
▶ Icon in Desktop



▶ Start Menu



▶ Control Panel - Programs - Uninstall a program


Status of the Video
Main Video
Sub Video
Control Window Size Buttons
BlackBox Viewer for windows
REAR CAM
00:03 / 01:00
FRM
SPEED
X1.0
FILE OPEN
SETTING
CAPTURE
ACCELERATION
20120119_081357_MOT.mp4 12.02.01 20.374
20120119_082856_REC.mp4 12.02.01 5.305
20120119_082906_REC.mp4 12.02.01 36.38
20120119_083007_REC.mp4 12.02.01 35.836
20120119_083108_REC.mp4 12.02.01 36.151
20120119_083208_REC.mp4 12.02.01 35.950
20120119_083309_REC.mp4 12.02.01 36.226
20120119_083410_REC.mp4 12.02.01 35.893
20120119_083510_REC.mp4 12.02.01 36.185
20120119_083616_REC.mp4 12.02.01 35.790
20120119_083716_REC.mp4 12.02.01 33.873
20120119_083836_REC.mp4 12.02.01 35.714
20120119_083937_REC.mp4 12.02.01 36.420
20120119_084038_REC.mp4 12.02.01 35.696
Playback Control Buttons
Screen Conversion Buttons
X2
Setting Up the Viewer/Products
File List

▶ Playback Control Buttons

1 Time Line : shows playing time / total time.
To move to a specific point in the file, move the Seek slider to the point that you want the file to play.

2 Volume : By clicking volume bar, user can control volume of the playing sound.
When clicking the icon, the video plays in Mute.

3 Play/Pause : Play/Pause the video file

4 Stop : Stop playing the video file.

5 Move Frame : Move the frame to 1 sec before/after.

6 Previous/Next File : Play previous/next video file.

7 Playback Speed: Play the Video file in fast/slow speed.

▶ Screen Conversion Buttons

1 Map Browsing : Check the location of the your vehicle on the Google map.
(This is available when using GPS module.)

2 Enlarge the Map : Show the map for enlarging.

3 Screen Conversion : Show the front/rear view of the recording file on main/sub video output screen.

▶ Control Window Size Buttons

1 Minimize : Minimize the screen size.

2 Maximize : Maximize the screen size.

3 Close : Close the screen.
Exit the viewer program.

▶ Setting Up the Viewer/Products

▶ FILE OPEN

Open the folder that contains the video file and playback the video files.

▶ SETTING

Set up the usage environment for car black box. User can set up the shock sensibility, sound volume, time etc.

▶ CAPTURE

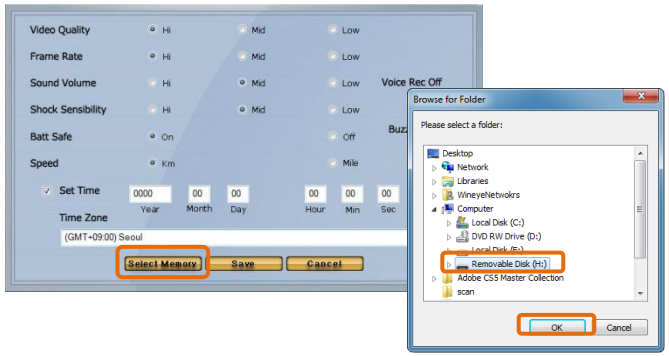
User can capture and save the screen shot of the playing video file.

▶ ACCELERATION

Check acceleration graph on the basis of 3 axis G sensor’s values.

1

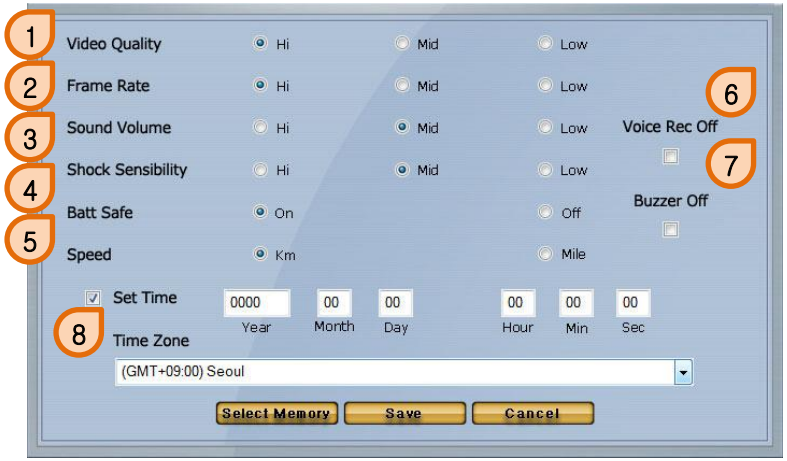
Connect the SD card reader into your computer. Click the 'Select Memory' button of the setting window. And select the SD Card(HD BALCKBOX) of Removable Storage. Click OK.



2

Set up the usage environment for car black box.

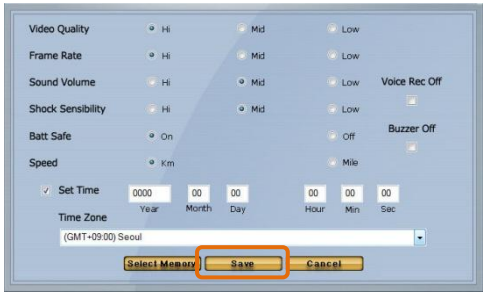
1. **Video Quality** : Select the recording video quality.
2. **Frame Rate** : Select the recording frame rate.
3. **Sound Volume** : Select the recording sound volume.
4. **Shock Sensitivity** : Select the shock sensibility.
5. **Batt Safe** : Switch on/off the function of discharge prevention device.
6. **Voice Rec Off** : Switch on/off the mute function.
7. **Buzzer Off** : Switch on/off the buzzer tone.
8. **Set Time, Time Zone** : Set up the date and time.

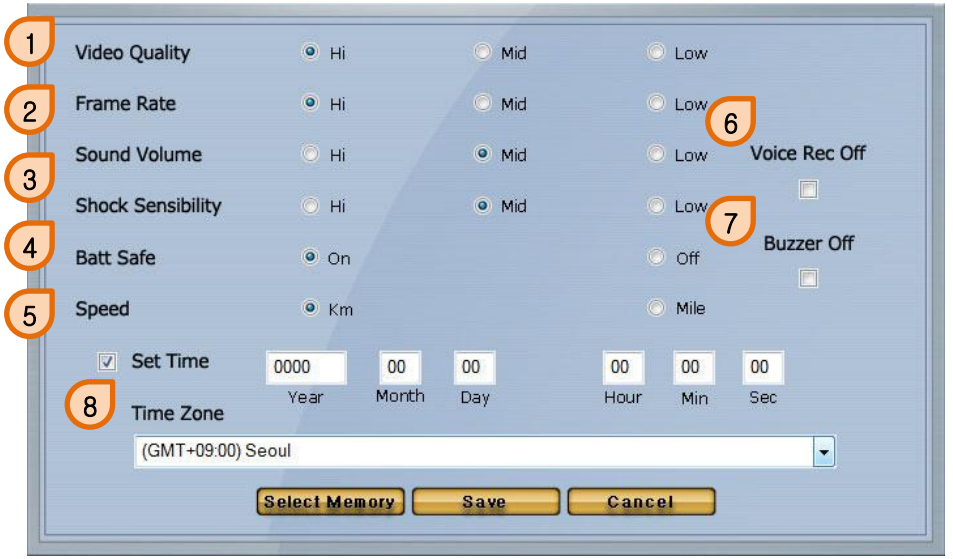


3

Click 'Save' button then the setting file is saved to the <setting> folder of SD card. Insert this SD card to the main body and operate the product. You can use the product in usage environment that you set up.

If you format the SD card or use other SD card, the product cannot be operated in usage environment you set up.





1 **Video Quality**

2 **Frame Rate** : Select the recording frame rate.

3 **Sound Volume** : Select the recording sound volume. (When you select 'hi', some noise or high frequency sound can occur to recording sound.)

4 **Shock Sensitivity** : Select the shock sensibility. Depend on the circumstance of the driving environment, user can set up the sensibility of the g-sensor.

5 **Batt Safe** : Switch on/off the function of discharge prevention device.
When user use other additional device for discharge prevention, we recommend to switch off the Batt Safe.

6 **Voice Rec Off** : Switch on/off the mute function.
When you check the button, the video file does not record any sound. You can confirm the LED flicker speed.(LED flickers slowly when MUTE mode.) And the video file has the MUTE text on the right-bottom side.

You can control the Mute function with operating Mode button.

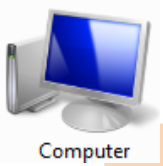
7 **Buzzer Off** : Switch on/off the buzzer tone.
When you check the button, there is NO buzzer tone.

You can control the Buzzer tone on/off function with operating Rec button.

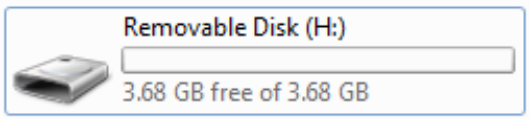
8 **Set Time, Time Zone** : If you are not using external GPS module, you can set up the date & time.
The date and time shows on left-bottom side of the video file. Time error can occur while setting up.

(If you are using external GPS module, you can get the exact date & time data from the satellite.)

▶ Computer



▶ Removable Storage : SD Card

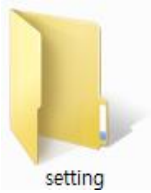


▶ Folder

Driving folder
- The video file stores to <DRIVING> folder in max 1 min long while you are driving.

Event folder
- The video files are saved in <EVENT> folder when event occurs by g-sensor or clicking the REC button.
- Max 30 sec long.

Parking folder
- The video files are saved in <PARKING> folder if the product get the power input during parking.
- Max 1 min long motion detected file.
- Max 30 sec long event detected file.



Setting folder
- The setting file that user sets up using viewer program is saved in <setting> folder.

Update folder
- This <UPDATE> folder is for updating proceed when the newest firmware file is supported by maker.

Caution

※ Each icon and image can be different in user PC conditions. This is for helping that user understands the folder configuration. Therefore each icon and the image can be different in user PC conditions.

14. Firmware Upgrade

1 Provided in our website and download the firmware file to your PC to save them.

2 Connect the SD card reader into your PC, copy the firmware file to <UPDATE> folder. The firmware file is '*****.bin'.

3 Under the circumstance that the power of black box is completely off, insert the SD card that contains the firmware file to main body.

4 Supply power to the main body connecting power port, then the updating progresses automatically with short 2 beeps. During the updating procedure, two LEDs(blue & red) flickers by turns.

5 After upgrading procedure, there are two short beeps. And then re-boot the main body automatically.

6 You can check the firmware version information on the video. There is a text about the firmware version on left-bottom side of the video.

※ After upgrading procedure, all setting values can be initializing. If you want to keep your own setting values, you should move the setting file to other storage and re-move to SD card after upgrading procedure.

※ During the upgrading procedure, insecure power supply can occur malfunction of the product. You should check the condition that you can supply the power secure to product before doing the upgrade.

Manufacture guarantees warranty service for our manufactured products according to consumer compensation regulations.
Warranty service shall be provided by manufacture or designated partners on user's request for warranty service for this product. Warranty period for this product is 1year after the purchase date.

▶ Free A/S is provided in case of defects in the product itself within 1 year after purchase date.
▶ In the case of an unknown purchase date on the warranty service document, warranty period will be 1 month in addition to the production date according to the serial number of the manufacture date on the product.

WARRANTY

Model No.	SAC2
Purchase Date	
Serial No.	
Retail Store	
Term of Guarantee	1 year